

REMARKS

In the Office Action, the Examiner rejected claims 1-5 and 11-14 under 35 U.S.C. 102(b) as being anticipated by Abe in U.S. Patent No. 4,072,156. Claims 6-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Abe in U.S. Patent No. 4,072,156. Further, claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Abe in U.S. Patent No. 4,072,156 in view of Ueda in U.S. Patent No. 4,230,135. Claims 15 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Abe in view of Zimmermann in U.S. Patent No. 4,178,502. Claims 17 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Abe in view of Nissmo et al. in U.S. Patent No. 3,818,918.

Applicant would like to thank Examiner Beauchaine for the consideration given applicant's attorney at the interview of July 31, 2006. As was discussed with the Examiner, the Examiner relied upon the passage of column 4, lines 62-66 of Abe, where mention is made of "deflection of cantilever arms 20" sharing in thrusting coins together with flexing of the propelling belt 8.

Of course the cantilever arms 20 have a certain degree of deformability, however little it is, since they cannot be made of an absolutely rigid material (such as glass would be, for example). However, one of ordinary skill in the art would easily understand from the whole specification and drawings of Abe that the very

greatest part of the elastic deformation of the conveyor device undergoes when a coin is present depends on the compliance of belt 8, while compliance of the cantilever arm 20 is actually insignificant.

This is supported by the detailed description Abe makes of the propelling belt 8, which is a tubular belt made of soft and highly elastic material, so as to undergo a radial deformation when it is subjected to a pressure applied to its outer peripheral surface (column 4, lines 23-29), with said radial deformation depending on the thickness of each coin entering the space below the belt and the elastic restoring force of the belt being used to push the coins into the sorting holes (column 6, lines 3-10). The drawings of Abe (for example Figures 4 and 5) also show that the only appreciable deformation in the components of the conveyor device concerns the belt 8 and not the cantilever arms 20.

In fact, it should be noted that the system formed by the soft, elastically deformable tubular belt 8 and by the cantilever arm 20 can be schematically represented as two springs coupled in series, wherein the first spring (the soft, yielding belt 8) is highly resilient and the second spring (the cantilever arm 20) has very little elasticity. Anyone of ordinary skill in the art can easily acknowledge that the resulting elastic behavior of such pair of springs coupled in series is merely given by the elasticity of said first, highly resilient spring, while the second, appreciably

more rigid spring does not significantly contribute to the overall elasticity of the system.

As a matter of fact, the minimal compliance allowed by the cantilever arm 20 could be actually exploited only when the elastic deformation of the tubular belt 8 is exhausted, i.e. when said tubular belt is fully squeezed, but this occurrence does not appear feasible in view of the proportions of the belt relative to the coins shown in the drawings of Abe. As clearly visible for example in Figures 4 and 5, a coin should have a thickness at least four times as much as the illustrated coin C to cause full squeezing of tubular belt 8!

In view of the above, one of ordinary skill in the art could not derive from Abe anything but the elastic behavior of the system formed by belt 8 and cantilever arm 20 merely depending on the elastic compliance of the tubular belt 8 and the cantilever arm 20 being actually to be considered as a “substantially rigid” element.

Such arrangement is just the opposite of the system according to the claimed invention, wherein the elastically yielding element is the pulley supporting pin 38 and the belt 33 is to be considered as the “substantially rigid” element of the pair: to support this, there is Fig. 2 of the present application, where the belt 33 is exemplified as having a full cross section (that is to say with very little radial compliance).

Moreover, it should be noted that, in view of the conveyor device of Abe involving an elastic compliance only in the belt 8 having a tubular, squeezable cross section, no “pendulum” effect can be generated by said tubular cross section, which would help the coin to be pushed to the sorting hole.

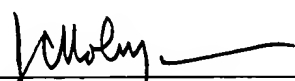
It should be noted that in Abe, due to the above discussed substantially rigid behavior of the cantilever arms 20, resulting in a substantially fixed position of the pulleys relative to the plane 37 where coins are flowing, the belt 8 always runs in the same plane (comparable with the “natural plane” mentioned in amended claim 1), which is tangent to the fixed pulleys and at a constant distance from plane 37. In other words, in Abe the belt 8 does not change its running plane (or “natural plane”) and the whole thickness of the coins is absorbed by the radial elastic compliance of the soft tubular belt 8, i.e. a deformation taking place inside the cross section thereof.

Based on the foregoing amendments and remarks, it is respectfully submitted that the claims in the present application, as they now stand, patentably distinguish over the references cited and applied by the Examiner and are, therefore, in condition for allowance. A Notice of Allowance is in order, and such favorable action and reconsideration are respectfully requested.

However, if after reviewing the above amendments and remarks, the Examiner has any questions or comments, he is cordially invited to contact the undersigned attorneys.

Respectfully submitted,

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